

US-PAT-NO: 6188439

DOCUMENT-IDENTIFIER: US 6188439 B1

TITLE: Broadcast signal
receiving device and method thereof for
automatically
adjusting video and audio signals

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US Patent No. - PN (1):

6188439

Brief Summary Text - BSTX (11):

To achieve the above object, the present invention provides a broadcast signal receiving method including the steps of receiving a broadcast signal through an antenna from a broadcasting station, detecting genre data of a program from the broadcast signal, decoding the detected genre data of the program, reading a video and audio control signal corresponding to the result of the decoding, and adjusting the current video and audio condition according to the control signal.

Brief Summary Text - BSTX (12):

Furthermore, the present invention provides a broadcast signal receiving device including a tuner for selectively receiving a broadcast signal input through an antenna by a channel selection signal, a signal processing unit for processing the broadcast signal input from the tuner to be converted into an appropriate signal to comply with a set. Also included is a video and audio signal separation unit for separating the converted signal from the signal processing unit into a video signal and an audio signal. An audio signal processing unit adjusts the level of audio signal separated by the video and audio signal separation unit. A video signal processing unit adjusts the level of video signal separated by the video and audio signal separation unit. A genre data detection unit adjusts genre data of a program from the video signal separated by the video and audio signal processing unit. A control unit reads the video and audio control signals by **decoding** the detected data by the data detection unit and outputting the control signals to control the overall operation of the device, and a memory for storing control signals for the read video and audio signal are also included.

Detailed Description Text - DETX (9):

The genre data detection unit 14 serves

to detect genre data from the separated video signal input from the video and audio signal separation unit 8. The control unit 16 serves to read data for controlling video and audio by **decoding** the detected data from the data detection unit 14 and outputs a control signal to control video and audio signals to the video signal processing unit 12 and the audio signal processing unit 10, respectively.

Detailed Description Text - DETX (10):

The control unit 16 also serves to control the overall operation of the device. The control unit 16 **decodes** the detected data by the genre data detection unit 14, and reads the video and audio control signal corresponding to the genre data thereby outputting the control signal to the video signal processing unit 12 and the audio signal processing unit 10, respectively. Furthermore, the control unit 16 outputs a channel selection signal corresponding to a key signal for channel selection being inputted from the key input unit 20 by a televiewer. The memory 18 serves to store data to control video and audio signals.

Detailed Description Text - DETX (14):

At step S15, the genre data is detected

from the separated video signal by the genre data detection unit 14 to be input to the control unit 16. At step S16, the genre data is decoded by the control unit 16, and the video and audio control signal, corresponding to the result of decoding at step S16, is read from the memory 18 at step S17.

Detailed Description Text - DETX (19):

The control unit 16 controls the genre data to be decoded to sports genre in S16 to read the video and audio control signal belonging to the sports genre from the memory 18 in S17.

Claims Text - CLTX (4):

decoding the detected genre data of the program;

Claims Text - CLTX (5):

reading a video and audio control signal corresponding to the result of decoding; and

Claims Text - CLTX (14):

means for detecting and decoding genre data of a program from the broadcast signal;

Claims Text - CLTX (15):

means for generating a video and audio control signal corresponding to the result of the decoded genre data; and

Claims Text - CLTX (29):

a control unit for reading video and audio control data by decoding the detected data by the data detection unit and outputting control signal to control the overall operation of the device; and